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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,534	07/11/2003	Paul N. Becker	MP1713-US2	5036
7590 03/11/2004			EXAMINER	
Tyco Electronics Corporation Intellectual Property Law Dept. MS R20/2B 307 Constitution Drive Menlo Park, CA 94025-1164			EASTHOM, KARL D	
			ART UNIT	PAPER NUMBER
			2832	
DATE MAILED: 03/11/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/618,534

Applicant(s)

BECKER ET AL.

Examiner

Karl D Easthom

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 and 14-23 is/are pending in the application.
- 4a) Of the above claim(s) 14-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 17-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/11/03</u> .   | 6) <input type="checkbox"/> Other: ____.                                    |

Art Unit: 2832

1. Applicant's election without traverse of claims 1-10 and 17-21 in the paper filed 2/24/04 is acknowledged.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-9 and 17-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Chandler et al. (US 5,874,885). Chandler discloses the claimed invention at claim 1 and at col. 6, lines 5-50, where Ra is from 1.3-2.0 um, and Rd is from .6-.8, so that the product for claim 1 is about .84-1.66. For the polymer, electrode foil, contact, and see claim 1 of Chandler. For claim 2, the range is met. For claims 3-4, see cols. 3-4, lines 45-50. For claim 5, the PTC is disclosed at col. 3, lines 1-50. For claims 6-8, see col. 5, lines 5-35. For claim 9, see claims 14-16 of Chandler. For claim 17, the surface layer protrusions for any given foil can be a maximum of anywhere between the range of 0.7-10um, which is the thickness, as disclosed at col. 7, lines 1-15, with RD met as noted above. Or see col. 5, lines 35-47, where a regularity is said to protrude by at most 10um, at least .03microns, particularly at least .1um, which implies less than 1um. For claim 18, pulse plating is not seen to produce a different product than by electrodeposition, see col. 5, lines 30-35, there being no evidence that a pulse plating process step results in a distinct product. For claims 19 and 22, see claim 3 of Chandler. For claim 20, the irregularities of smaller nodules, in the form of a "bunch of grapes" is dendritic, see col. 5, lines 45-50. For claim 21, the foils are produced by depositing by electrodeposition as noted at

col. 5, and diffusion is "limited" to the extent that the process is finite in time. For claim 23, see claim 13 of Chandler.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chandler et al. (US 5,874,885). Chandler discloses the invention essentially as noted above except for the Ra of the base being less than .45um. Chandler discloses that the Ra for the base should be "especially less than 0.7" at col. 5, lines 50-60 in order to form a generally smooth layer for a later surface or intermediate layer, by depositing material for better adhesion to a polymer so that it would have been obvious to employ a base layer of .45um where Chandler teaches one of "especially less than 0.7".

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl D Easthom whose telephone number is (272) 571-1989. The examiner can normally be reached on M-Th, 5:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on (272) 571-1989. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2832

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Karl D Easthom  
Primary Examiner  
Art Unit 2832

KDE